



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,959	01/14/2002	Tim Forrester	UTL 00082	4413

7590 07/10/2003
Kyocera Wireless Corp.,
Attn: Patent Department
PO Box 928289
San Diego, CA 92192-8289

EXAMINER

MULL, FRED H

ART UNIT	PAPER NUMBER
----------	--------------

3662

DATE MAILED: 07/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

10/046,959

Applicant(s)

FORRESTER, TIM

Examiner

Fred H. Mull

Art Unit

3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,9 and 11-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,9 and 11-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Incorporation by Reference

1. The incorporation by reference of 09/898,269 and 09/975,124 in new paragraph 1 of the specification is proper because these applications were previously incorporated by reference in old paragraphs 24 and 26, respectively.

Copending Applications

2. Applicant(s) are reminded of their responsibility to disclose the rejection of claims in a copending application before a different examiner that are substantially similar to the claims in the present application (*Dayco Products Inc. v. Total Containment Inc.*, Fed. Cir., No. 02-1497, 5/23/03).

Drawings

3. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 5, 9, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Davis (previously cited).

In regard to claims 1 and 9, Davis discloses a GPS receiver configured to receive GPS signals (144, Fig. 1); a wireless communication receiver/transmitter configured to receive/transmit wireless communication signals (145); and a processor coupled with the GPS and wireless communication receivers (142), the processor configured to fully process the GPS signals, such that the receiver can act as a standalone GPS receiver, and the wireless communication signals (Figs. 5 and 6; column 5, line 43 to column 6, line 3).

In regard to claims 5 and 13, Davis further discloses a common demodulation circuit for both GPS and wireless communication signals (Fig. 4; column 5, lines 21-25).

5. Claim 40 is rejected under 35 U.S.C. 102(b) as being anticipated by Soliman '229.

Soliman discloses a wireless communication transceiver configured to allow the wireless communication device to interface with a wireless communication network; and a GPS receiver configured to receive GPS signals, the wireless communication device configured to act as a standalone GPS receiver (mode 2) or to act as a network assisted GPS receiver (mode 3) when it is determined that network assistance is available from the wireless communication network (col. 2, lines 17-36; col. 3, lines 54-62).

Claim Rejections - 35 USC § 103

6. Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman '229 in view of Davis (previously cited).

Soliman discloses a wireless communication transceiver configured to allow the wireless communication device to interface with a wireless communication network; and a GPS receiver configured to receive GPS signals, the wireless communication device configured to act as a standalone GPS receiver (mode 2) or to act as a network assisted GPS receiver (mode 3) when it is determined that network assistance is available from the wireless communication network (col. 2, lines 17-36; col. 3, lines 54-62).

Soliman further discloses combining a component of the wireless communication portion and the GPS portion of his device (column 6, lines 32-34). Davis discloses combining several components of the wireless communication portion and the GPS portion of his device, including the processor (Figs. 4, 5, and 6; col. 1, lines 25-28; col. 5, line 43 to col. 6, line 3; col. 5, lines 21-25) and that this combination provides a less bulky, costly, and complex device (column 1, line 63 to column 2, line 9). It would have been obvious to combine further components of the GPS and wireless communication portion of the device of Soliman '229, including the processor, as taught by Davis in order to provide a less bulky, costly, and complex device.

7. Claims 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (previously cited) in view of Soliman '229.

Davis discloses a GPS receiver configured to receive GPS signals (144, Fig. 1); a wireless communication receiver/transmitter configured to receive/transmit wireless

Art Unit: 3662

communication signals (145); and a processor coupled with the GPS and wireless communication receivers (142), the processor configured to fully process the GPS signals, such that the receiver can act as a standalone GPS receiver, and the wireless communication signals (Figs. 5 and 6; column 5, line 43 to column 6, line 3). Davis fails to disclose a network assisted mode, disclosing only standalone operation.

Network assistance is well known. Specifically, Soliman '229 discloses a wireless communication transceiver configured to allow the wireless communication device to interface with a wireless communication network; and a GPS receiver configured to receive GPS signals, the wireless communication device configured to act as a standalone GPS receiver (mode 2) or to act as a network assisted GPS receiver (mode 3) when it is determined that network assistance is available from the wireless communication network (col. 2, lines 17-36; col. 3, lines 54-62). Soliman '229 further discloses that this assistance decreases the position determination time, which is important in the event of an emergency, and reduces power usage due to shorter processing times (col. 1, lines 12-24 and 51-65).

It would have been obvious to include the known assisted GPS mode in the device of Davis, both due to safety concerns, and to reduce power consumption by prolonged satellite signal acquisition searches. Additionally, since Soliman '229 already possesses a wireless communication portion, little, if any, additional hardware is required.

8. Claims 4, 12, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (previously cited), as applied to claims 1 and 9, above, in further view of Krasner '960 (previously cited).

Art Unit: 3662

In regard to claims 4 and 12, Davis teaches providing a less bulky, costly, and complex device by combining common components in a GPS/wireless communication device (column 1, line 63 to column 2, line 9). Davis fails to make reference to an antenna, either a common antenna or separate antennas.

Krasner '960 teaches the use of a common antenna for both a GPS/wireless communication (column 8, lines 28-29) that also provides a common processor and other common circuitry (column 8, lines 21-27).

It would have been obvious to include a known common GPS/wireless communication antenna, such as that taught by Krasner '960, into the device of Davis in order to reduce the bulk and complexity of his device, as he motivates.

In regard to claim 24, it would have been obvious to provide a diplexer to distribute signals with different destination from a single source, such as a common antenna, as that is what a diplexer is designed to do.

In regard to claims 25-26, it is obvious that if one would want to combine single band cellular phones with GPS positioning, e.g. for safety concerns, FCC regulation, etc., that one would also want to combine dual-band cellular phones with GPS position for the exact same reasons. It would have been obvious to provide the GPS/wireless communications combination of Davis-Krasner '960 for dual-band cellular phones as well as single band cellular phones.

Following the logic of the previous claim, it would have been obvious to provide a triplexer to distribute the three signals to their respective destinations.

Art Unit: 3662

9. Claims 4, 12, and 20-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis (previously cited), as applied to claims 1, 5, 9, and 13 above, and in further view of Krasner '944 (previously cited).

In regard to claims 4 and 12, Davis teaches providing a less bulky and complex device by combining common components in a GPS/wireless communication device (column 1, line 63 to column 2, line 9). Davis fails to make reference to an antenna, either a common antenna or separate antennas.

Krasner '944 teaches the use of a common antenna for both a GPS/wireless communication (column 7, lines 38-40) that also provides a common processor (112, Fig. 1; column 5, lines 11-20; column 6, lines 38-42).

It would have been obvious to include a known common GPS/wireless communication antenna, such as that taught by Krasner '944 into the device of Davis in order to reduce the bulk and complexity of his device, as he motivates.

In regard to claims 20 and 30, Krasner '944 further discloses a switching module configure to couple the antenna to the GPS receiver when receiving GPS signals and to the wireless communication receiver when receiving wireless communication signals (column 7, lines 45-49).

In regard to claims 21 and 31, it is well known to match impedances between different device such that signals will transmit from one to the other without signal loss due to reflection at the impedance discontinuity.

In regard to claim 22 and 32, it is obvious that if one would want to combine single band cellular phones with GPS positioning, e.g. for safety concerns, FCC regulation, etc., that one

Art Unit: 3662

would also want to combine dual-band cellular phones with GPS position for the exact same reasons. It would have been obvious to provide the GPS/wireless communications combination of Davis-Krasner '944 for dual-band cellular phones as well as single band cellular phones.

In regard to claims 23-24 and 33-34, it would have been obvious to provide a diplexer to distribute signals with different destinations from a single source, such as a common antenna, as that is what a diplexer is designed to do.

In regard to claims 25-26 and 35-36, following the logic of the previous claim, it would have been obvious to provide a triplexer to distribute the three signals to their respective destinations.

In regard to claims 27 and 37, following the logic of claims 20 and 30, a switch to separate GPS and wireless communication signals would separate and selectively couple the GPS signals and the wireless communication signal to the demodulator.

In regard to claims 28 and 38, it is well known to use a dual band oscillator when demodulating signals in two frequency bands. (For example, see Krasner '363 in paragraph 11 of this action).

In regard to claims 29 and 39, it would have been obvious to provide a diplexer to separate signals, as that is what a diplexer is designed to do.

10. Claims 14-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman '229, as applied to claim 40 above, and in further view of Krasner '960 (previously cited).

In regard to claims 14 and 17, Soliman '229 discloses a wireless communication transceiver configured to allow the wireless communication device to interface with a wireless

Art Unit: 3662

communication network; and a GPS receiver configured to receive GPS signals, the wireless communication device configured to act as a standalone GPS receiver (mode 2) or to act as a network assisted GPS receiver (mode 3) when it is determined that network assistance is available from the wireless communication network (col. 2, lines 17-36; col. 3, lines 54-62).

Soliman further discloses receiving a request for position information (col. 10, lines 51-54), and the importance of power control (col. 1, lines 37-44; col. 6, lines 43-44). Soliman fails to disclose activating the GPS portion and wireless portion when they are needed and disabling them when they are not.

Krasner '960 discloses a combined wireless communication transceiver / GPS receiver with power control, wherein the GPS receiver and wireless communication transceiver are each activated and deactivated as needed (col. 2, lines 4-5).

Since the device of Soliman '229 can operate both as a standalone GPS receiver and an assisted receiver, it would have been obvious to use assistance information if it is available in order to speed up position determination and reduce power consumption that would otherwise result from a longer processing time.

If no assistance information were available, it would have been obvious to then disable the wireless communication transceiver in order to save power, as motivated by Soliman '229, by following the teaching of Krasner '960 to deactivate a portion that is no longer needed. Following the same logic, it would have been obvious to have the GPS receiver portion deactivated until a position request, then to activate it for positioning.

In regard to claims 15 and 18, it would have been obvious that, if network assistance information were available, to receive this information, process it, and determine device location based on this information.

In regard to claims 16 and 19, it is well known to load instructions into an electronic device from memory when the device is powered up.

11. The examiner also finds the following reference(s) relevant:

Krasner '363, which, like Davis, teaches a common demodulation circuit for both GPS and wireless communication signals (column 2, lines 46-51); a switch to separate GPS and wireless communication signals which would separate and selectively couple the GPS signals and the wireless communication signal to the demodulator (6, 10, Fig. 1A); and a dual frequency synthesizer that uses a tunable local oscillator (column 5, lines 42-65).

Soliman '412, which is similar to Soliman 229.

Applicant is encouraged to consider these documents in formulating their response to this action, in order to expedite prosecution of this application.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

Art Unit: 3662

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred H. Mull whose telephone number is 703-305-1250. The examiner can normally be reached on M-F 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza can be reached on 703-360-4171. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

Fred H. Mull
Examiner
Art Unit 3662

fhm
July 3, 2003



THOMAS H. TARCZA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600